

IN THE CLAIMS:

Please cancel claims 27 and 40 without prejudice or disclaimer of the subject matter thereof.

The following is a complete listing of claims in this application.

22. (currently amended) A composition for stabilization of an active agent, comprising:

a plurality of multilamellar vesicles in the form of a regular stack of concentric bi-layers comprising at least one surfactant, said regular stack of concentric bi-layers extending from each vesicle core to periphery, and being separated by an interstitial liquid;

a first compound comprising said active agent encapsulated within said vesicles, said active agent being subject to chemical degradation and being selected from the group consisting of reducing molecules, oxidizing molecules, and molecules sensitive to hydrolysis; and

a second compound encapsulated within said vesicles, said second compound being an inhibitor of the chemical degradation of said active agent, said inhibitor acting chemically to prevent the chemical degradation, and being present within said vesicles in an amount sufficient to inhibit degradation of said active agent,

said composition being prepared by the steps of preparing a liquid crystal lamellar phase comprising said at least one surfactant, said first compound and said second compound, and subjecting said liquid crystal lamellar phase to shear, to obtain thereby said plurality of multilamellar vesicles having said first compound and said second compound encapsulated therein.

23. (previously presented) The composition according to claim 22, wherein the interstitial liquid is water and the

active agent is included in the bi-layers of said vesicles when the active agent is hydrophobic or in the interstitial liquid when the active agent is hydrophilic.

24. (previously presented) The composition according to claim 22, wherein said vesicles are of dimensions in the range 0.1 μm to 50 μm .

25. (previously presented) The composition according to claim 22, wherein said bi-layers of said vesicles comprise a mixture of a lipophilic surfactant, having a hydrophilic-lipophilic balance (HLB) in the range 3 to 7, and a hydrophilic surfactant, having an HLB in the range 8 to 15.

26. (previously presented) The composition according to claim 22, wherein said bi-layers of the vesicles further contain at least one polymer surfactant or a polymer having amphiphilic properties.

27. (canceled)

28. (previously presented) The composition according to claim 22, wherein said active agent is a substance sensitive to oxidation and said agent for inhibiting degradation is a substance having reducing properties, having a sequestering effect or which acts on pH when the redox potential depends on pH.

29. (previously presented) The composition according to claim 28, wherein said vesicles contain, as the active agent, vitamin C or a derivative thereof, together with at least one agent for reducing oxidation thereof.

30. (previously presented) The composition according to claim 22, wherein said agent for avoiding degradation of said active agent has an amphiphilic nature, and plays an active role in the formulation of the bilayers of said vesicles.

31. (previously presented) The composition according to claim 22, wherein said agent for stabilizing said active agent

comprises a second active agent.

32. (previously presented) The composition according to claim 22, wherein said vesicles further comprise at least agent for enhancing leaktightness of the vesicles, said at least one agent being encapsulated within said vesicles or comprising an external coating on said vesicles.

33. (currently amended) A method for improving the stability of an encapsulated active agent which is subject to chemical degradation, comprising the steps of:

preparing a liquid crystal lamellar phase comprising at least one surfactant, at least one active agent subject to chemical degradation selected from the group consisting of reducing molecules, oxidizing molecules, and molecules sensitive to hydrolysis, and at least one inhibitor of said chemical degradation which acts chemically to prevent said chemical degradation; and

subjecting said liquid crystal lamellar phase to shear, to obtain thereby a plurality of multilamellar vesicles in the form of a regular stack of concentric bi-layers comprising at least one surfactant, said regular stack of concentric bi-layers extending from each vesicle core to periphery, and being separated by an interstitial liquid, said vesicles containing therein said active agent and said inhibitor.

34. (previously presented) The method according to claim 33, wherein said shear is homogeneous shear.

35. (previously presented) A stabilized enzyme composition, comprising:

a plurality of multilamellar vesicles in the form of a regular stack of concentric bi-layers comprising at least one surfactant, said regular stack of concentric bi-layers extending from each vesicle core to periphery, and being separated by an interstitial liquid;

at least one enzyme encapsulated within said vesicles which is subject to degradation by chemical reaction; and

an inhibitor of the degradation by chemical reaction of said at least one enzyme present within said vesicles in an amount sufficient to inhibit degradation of said at least one enzyme,

said vesicles being obtained by preparing a preparing a liquid crystal lamellar phase comprising at least one surfactant, at least one active agent subject to chemical degradation and at least one inhibitor of said chemical degradation; and

subjecting said liquid crystal lamellar phase to shear to obtain said vesicles containing said active agent and said inhibitor therein.

36. (previously presented) The composition according to claim 35, wherein said agent for inhibiting degradation of said enzyme is a known stabilizing agent for stabilizing proteins.

37. (previously presented) The composition according to claim 35, wherein said agent for stabilizing said enzyme is selected from the group consisting of surfactants and amphiphilic molecules comprising the following moities:

- quaternary ammoniums;
- amines and ethanolamine;
- molecules carrying a phosphate function;
- salts and esters of fatty acids;
- salts of polyacids;
- alcohols;
- glycerol and esters thereof;
- polyols, polyethyleneglycol, polypropyleneglycol; and
- sugars.

38. (previously presented) The composition according to

claim 35, wherein said agent for stabilizing said enzyme is a polymer, selected from the group consisting of:

- optionally modified polysaccharides;
- optionally substituted polyvinylpyrrolidones;
- cellulose and cellulose derivatives;
- polyacrylates;
- polyvinylalcohol and partially hydrolyzed derivatives of polyvinylacetates;
- polyacrylamides; and
- polyamides.

39. (previously presented) The composition according claim 35, wherein said agent for avoiding degradation of said enzyme is a compound having at least one nitrogen-containing function.

40. (canceled)

41. (currently amended) A method for improving the efficacy of a stabilizing agent for an active agent, comprising the steps of:

preparing a liquid crystal lamellar phase comprising at least one surfactant, at least one active agent subject to chemical degradation selected from the group consisting of reducing molecules, oxidizing molecules, and molecules sensitive to hydrolysis, and at least one inhibitor of said chemical degradation which acts chemically to prevent said chemical degradation; and

subjecting said liquid crystal lamellar phase to shear, to obtain thereby a plurality of multilamellar vesicles in the form of a regular stack of concentric bi-layers comprising at least one surfactant, said bi-layers extending from each vesicle core to periphery, and being separated by an interstitial liquid, said vesicles containing therein said active agent and said inhibitor.